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(54) Title: IMPROVEMENTS IN OR RELATING TO ROCK DRILLING EQUIPMENT

(57) **Abstract:** In a reverse circulation down-the-hole hammer assembly a having a axially extending central tube (30) for recovery of drilling debris, the central tube (30) has a downwardly facing abutment and an upwardly facing upper end and is located axially in the hammer assembly by having the part thereof between the downwardly facing abutment and the upper end located between axially spaced complementary abutments, one of which fixed and the other of which is provided by a resiliently longitudinally displaceable member within a casing part providing an upper end of the hammer assembly and which is removably retained in an adjoining part of the hammer assembly. The longitudinally displaceable member engages the upper end of the central tube and thus clamps the central tube in place. A drill bit for the hammer assembly has a head with a working face and a shank of reduced diameter as compared with the working face, the drill bit having one or more intake holes in the working face leading to a passage extending up the drill bit shank. The drill bit head has, at a location spaced from the working operative face, a circumferential band or collar providing a cylindrical external surface coaxial with the drill bit, the diameter of said circumferential band or collar being substantially equal to the effective diameter of the working face of the drill bit and not less than the diameter of any other part of the drill bit. Below the circumferential band or collar the drill bit has a circumferential groove around its exterior, and the drill bit has having passages for exhaust air discharging into that groove, whereby such air can pass around the front of the drill bit and across said face to exit through said intake holes.



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